

REMARKS

Applicant intends this response to be a complete response to the Examiner's 6 April 2005 Non-Final Office Action. Applicant has labeled the paragraphs in his response to correspond to the paragraph labeling in the Office Action for the convenience of the Examiner.

Claim Objections

Claim 12 stands objected to because of the following informality: Claim 12 (line 3) recites the phrase "the a" which does not make grammatical sense. Applicants traverse this objection and request reconsideration.

Applicant has removed the offending "a" leaving only the "the." Applicants, therefore, respectfully request withdrawal of this objection.

Rejections Under 35 U.S.C. §112, ¶2

Claims 10-19 stand rejected under 35 U.S.C. § 112, ¶2. Applicants traverse and respectfully request reconsideration based on the above claim amendments, if any, and the remarks presented herein.

The Examiner contends as follows:

Claim 10 recites the phrases "atomic tag" and "has a fluorescence property" which is confusing. It is well known in the art that molecular tags can have fluorescent properties, but it is unclear how an atomic tag can be fluorescent. It is unclear what exactly is meant by an atomic tag or how this tag contains such properties. Clarification of this issue via clearer claim wording is requested. Claims 11-19 are also rejected due to their direct or indirect dependency from claim 10.

Claim 10 recites the phrase "and where the changes in the detectable property generate data evidencing each monomer incorporation producing a monomer sequence read out". It is unclear what structural limitations are intended from this phrase that are to be applied to the claimed composition. For example, the composition is an entity with inherent properties and it does not appear that the composition can "generate data" as stated in the claim. Clarification of this issue via clearer claim wording is requested. It is noted that removal of this phrase will nullify this rejection. Claims 11-19 are also rejected due to their direct or indirect dependency from claim 10.

Claims 11 and 12 appear to contain limitations of method steps that lack clarity for the claimed composition. It is unclear how these method steps limit the structure or function of the claimed composition. Clarification of this issue via clearer claim wording is requested.

Applicants have amended claim 10 to remove "and/or atomic" because the claim relates to fluorescence and not other techniques where atomic tags would be functional. Applicants have also

removed the clause "and where the changes in the detectable property generate data evidencing each monomer incorporation producing a monomer sequence read out" mooted the second part of the rejection. Applicants have also canceled claim 11 and 12 to remove functional limitations that may be more appropriately addressed in a method claims. Applicants, therefore, request removal of this section 112, 2nd ¶ rejection.

Applicants note that the amendments are made to produce a functionally consistent claim and not in the vane to narrow the claim. Additionally, the remove of the last clause of claim 10 broadens the claim and does not narrow it.

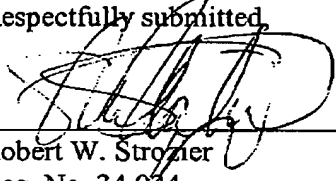
Applicants have added new claims 50-56 that are directed to polymerization using dNTPs labeled at the beta and gamma phosphate and is a combination of newly amended claim 10 and claim 16. As the Examiner has indicated that claim 10 and 16 would be allowable if the section 112, 2nd ¶ rejections were overcome and believing that they are now overcome, Applicants believe that claims 50-56 are allowable on the same grounds.

Applicants have amended claim 31 and directed it to beta and gamma labeled dNTPs which is the system that the Applicants are currently using. Applicants express reserve the right to pursue claims for other labeling formats in continuation or divisional applications.

Having fully responded to the Examiner's Non-Final Office Action, Applicant respectfully urges that is application be passed onto allowance.

Date: September 14, 2005

Respectfully submitted,



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